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THE LAW OFFICE OF KIRK D. WILLIAMS  
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EXAMINER

CHEN, TSE W

ART UNIT PAPER NUMBER

2116

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/042,846

Applicant(s)

HAIMOVSKY ET AL.

Examiner

Tse Chen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17, 20-22, 24-27 and 30-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 20-22, 24-27 and 30-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment dated March 10, 2005.
2. Claims 1-17, 20-22, 24-27 and 30-34 are presented for examination. Applicant has canceled claims 18-19, 23 and 28-29.

### *Specification*

3. The disclosure is objected to because the Brief Summary of the Invention is not distinct from the abstract. See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is *separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole*. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention. Appropriate correction is required.

### *Claim Objections*

4. Claims 8-11, 13, 16, 24, 34 are objected to because of the following informalities:
  - As per claim 8, “the first and second slave systems are released” should be “a first and second slave system controllers are released”.
  - As per claim 9, “a first system controller” should be “the first system controller”.
  - As per claim 10, “a second system controller” should be “the second system controller”.

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- As per claim 11, “to the access first remote boot” should be “to access the first remote boot”.
- As per claim 13, “to identify the first slave controller” should be “to identify a slave controller”.
- As per claim 16, “the master controller” should be “the master system controller”.
- As per claim 24, “to identify a first slave controller” should be “to identify a slave controller”.
- As per claim 34, “Claim 33” should be “Claim 34”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Rahman et al., US Patent 5539890, hereinafter Rahman.

7. In re claim 1, Rahman discloses an apparatus [processor system 10] comprising:

- A master system [microprocessor 12(0), maintenance diagnostic chip 14, and other associated circuitries/units such as memory 22].

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- A slave system [microprocessor 12(1) and other associated circuitries/units] including a programmable interface [processor interface chip 16] coupled to the master system [fig. 1; col.2, ll.42-61].
- A storage mechanism [memory 22, memory interface chip 20, and other associated circuitries/units], external to and coupled to the programmable interface, for storing a remote boot image [fig. 1; col. 10, ll. 17-41].
- Wherein the master system is configured to update the programmable interface to retrieve the remote boot image [col.9, l.36 – col.10, l.41; mdc 14 updates register 220 in pic 16 to indicate where to retrieve boot image].

8. As to claim 2, Rahman discloses the apparatus wherein the storage mechanism is a memory [22] [col.2, ll.42-53].

9. As to claim 3, Rahman discloses the apparatus wherein the master system includes the storage mechanism [12(1) and 22 are part of master system] [col.3, ll.7-59].

10. In re claim 20, Rahman discloses an apparatus [processor system 10] comprising:

- Means for redirecting a boot operation of a remote system [microprocessor 12(1) and other associated circuitries/units] [col.9, l.36 – col.10, l.41; mdc 14 updates register 220 in pic 16 to indicate where to retrieve boot image].
- Means for storing a remote boot image [col.10, ll.17-41; memory 22 and other associated circuitries/units].
- Means for providing the remote boot image to the remote system [col.1, l.56 – col.2, l.9; col.5, l.59 – col.6, l.5].

11. As to claim 21, Rahman discloses the apparatus wherein said means for redirecting [pic 16] and said means for storing are included in separate systems of the apparatus [fig. 1; col.2, ll.42-61].

12. As to claim 22, Rahman discloses the apparatus wherein said means for storing the remote boot image includes a file server [memory 22] [col.10, ll.17-41; boot codes are files].

*Claim Rejections - 35 USC § 103*

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 4-5, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rahman as applied to claims 1 and 3 above, and further in view of Haigh et al., US Publication 20020087854, hereinafter Haigh.

15. In re claim 4, Rahman discloses each and every limitation of the claim as discussed above in reference to claim 3. In particular, Rahman discloses the apparatus wherein the programmable interface [16] includes a system controller [boot address relocater 194] and wherein the master system is configured to update the system controller [col.9, ll.36-65]. Rahman did not discuss redirecting a boot image retrieval request from the slave system to the master system.

16. Haigh discloses an apparatus [fig.1] wherein the programmable interface [bus master interface 230] includes a system controller [code 218] to redirect a boot image retrieval request [command 214] from the slave system [client 100] to the master system [host 101] [pt.0025].

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17. It would have been obvious to one of ordinary skill in the art, having the teachings of Rahman and Haigh before him at the time the invention was made, to modify the apparatus taught by Rahman to include the system controller taught by Haigh, in order to obtain the apparatus wherein the programmable interface includes a system controller and wherein the master system is configured to update the system controller to redirect a boot image retrieval request from the slave system to the master system. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to reduce overhead and maintenance in a network system [Haigh: pt.0003-0016].

18. As to claim 5, Haigh discloses the apparatus wherein the master system [101] includes a master system controller [device driver 228] and wherein the master system is further configured to program the master system controller to redirect the boot image retrieval request to the storage mechanism [disk 201] [pt.0029].

19. As to claim 7, Haigh discloses the apparatus comprising a boot image server [101] coupled to the programmable interface [230] and wherein the boot image server includes the storage mechanism [201] [fig.2; pt.0020-0023].

20. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rahman to claim 1 above, and further in view of Jones et al., US Patent 6757759, hereinafter Jones.

21. Rahman discloses each and every limitation of the claim as discussed above in reference to claim 1. Rahman did not discuss a second slave system.

22. Jones discloses an apparatus [fig.1] comprising a second slave system [cpu 13] coupled to the programmable interface [link 30 and associated circuitries/units] and wherein the second slave system includes a storage mechanism [local memory 120] [col.13, ll.1-52].

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23. It would have been obvious to one of ordinary skill in the art, having the teachings of Rahman and Jones before him at the time the invention was made, to modify the apparatus taught by Rahman to include the second slave system taught by Jones, in order to obtain the apparatus comprising a second slave system coupled to the programmable interface and wherein the second slave system includes a storage mechanism. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to run multiple concurrent operations [Jones: col.14, ll.1-49].

24. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haigh in view of Rahman.

25. In re claim 8, Haigh discloses an apparatus [fig.1-3] comprising:

- A master system [sbc 302] including a storage mechanism [disk 301] for storing a first remote boot image and a second remote boot image [pt.0022—23, 0033-34; disk portions store associated sbc images].
- A first slave system [sbc 303] including a first programmable interface [bmi 320 and associated circuitries/units] coupled to the master system [pt.0034].
- A second slave system [sbc 304] including a second programmable interface [bmi 320 and associated circuitries/units] coupled to the master system [pt.0034].
- Wherein the master system is configured to perform one or more operations to identify the first slave system and the second slave system after the master system is booted and a first and second slave system controllers are released [218 are released to freely process commands], and in response [222 in response to being booted up], to determine that the first remote boot image should be used for the first slave system and that the second



remote boot image should be used for the second slave system [0015, 0026, 0033; 222 uses the parameters to identify the slaves and partition the disk accordingly to store associated sbc images].

- Wherein the master system is configured to retrieve the first remote boot image [pt.0022-23, 29, 33-36; 302 retrieves image from disk portion associated with sbc].
- Wherein the master system is configured to retrieve the second remote boot image [pt.0022-23, 29, 33-36; 302 retrieves image from disk portion associated with sbc].

26. Haigh did not discuss the details of retrieving the different remote boot images.

27. Rahman discloses an apparatus [processor system 10] comprising:

- A master system [microprocessor 12(0), maintenance diagnostic chip 14, and other associated circuitries/units such as memory 22] including a storage mechanism [memory 22, memory interface chip 20, and other associated circuitries/units] for storing a remote boot image [fig.1; col.10, ll.17-41].
- Wherein the master system is configured to update a programmable interface to retrieve the remote boot image [col.9, l.36 – col.10, l.41; mdc 14 updates register 220 in pic 16 to indicate where to retrieve boot image].

28. It would have been obvious to one of ordinary skill in the art, having the teachings of Rahman and Haigh before him at the time the invention was made, to modify the apparatus taught by Haigh to include the system controller taught by Rahman, in order to obtain the apparatus comprising a master system including a storage mechanism for storing a first remote boot image and a second remote boot image wherein the master system is configured to update the first/second programmable interface to retrieve the first/second remote boot image. One of

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ordinary skill in the art would have been motivated to make such a combination as it provides a way to reduce overhead and maintenance in a network system [Haigh: pt.0003-0016].

29. As to claim 9, Rahman and Haigh disclose each and every limitation of the claim as discussed above in reference to claims 4 and 8.

30. In particular, Haigh discloses the apparatus wherein the first programmable interface [bmi 320 and associated circuitries/units] includes a first system controller [code 218 associated with first slave system] to redirect a first boot image retrieval request [command 214 associated with first slave system] from the first slave system [sbc 303] to the master system [sbc 302] [pt.0025] while Rahman discloses the apparatus wherein the programmable interface [16] includes a system controller [boot address relocater 194] and wherein the master system is configured to update the system controller [col.9, ll.36-65].

31. As to claim 10, Rahman and Haigh disclose each and every limitation of the claim as discussed above in reference to claims 4 and 8.

32. In particular, Haigh discloses the apparatus wherein the second programmable interface [bmi 320 and associated circuitries/units] includes a second system controller [code 218 associated with second slave system] to redirect a first boot image retrieval request [command 214 associated with second slave system] from the second slave system [sbc 304] to the master system [sbc 302] [pt.0025] while Rahman discloses the apparatus wherein the programmable interface [16] includes a system controller [boot address relocater 194] and wherein the master system is configured to update the system controller [col.9, ll.36-65].

33. As to claim 11, Haigh and Rahman disclose each and every limitation of the claim as discussed above in reference to claims 5 and 8. In particular, Haigh discloses the apparatus

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wherein the master system [101, 302] includes a master system controller [device driver 228] and wherein the master system is further configured to program the master system controller to redirect the first boot image retrieval request to access the first remote boot image in the storage mechanism [disk 201] [pt.0029].

34. As to claim 12, Haigh and Rahman disclose each and every limitation of the claim as discussed above in reference to claims 5 and 11. In particular, Haigh discloses the master system [101, 302] that is further configured to program the master system controller [device driver 228] to redirect the second boot image retrieval request to access the second remote boot image in the storage mechanism [disk 201] [pt.0029].

35. Claims 13-14, 24-25, 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haigh in view of Jeffries, US Patent 5636342, and Getting Started Microsoft Windows 98, hereinafter Microsoft.

36. In re claim 13, Haigh discloses a method comprising:

- Booting a master system [host 101] [pt.0026].
- Programming a slave controller to [code 218] to relay a boot request [command 214] from a slave processor [single board computer 100] to a master system controller [device driver 228] [pt.0025, 0029].
- Programming the master system controller to relay the boot request to a storage mechanism [disk 201] [pt.0029].
- Programming the master system controller to relay a boot image from the storage mechanism to the slave controller [pt.0029-30].

- Programming the slave controller to relay the boot image to the slave processor or memory associated with the slave processor [pt.0030].
- Booting the slave processor with the boot image [pt.0031].

37. Haigh did not discuss the details of identifying the slaves.

38. Jeffries discloses a method comprising a master system [smb master], after a booting [boot in order to operate], performing one or more operations [get identity] to identify a slave controller [smb slave] [col.7, ll.39-61], to interrogate the slave controller to identify one or more characteristics [nature, revision] of the slave controller [col.8, ll.34-47].

39. It would have been obvious to one of ordinary skill in the art, having the teachings of Jeffries and Haigh before him at the time the invention was made, to modify the master system taught by Haigh to include the teachings of Jeffries, in order to automatically assign addresses to slaves in a system without requiring the user to manually or programmatically set physical or logical switches [Jeffries: col.2, ll.5-22]. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to automatically assign addresses to slaves in a system without requiring the user to manually or programmatically set physical or logical switches.

40. Microsoft discloses determining a boot image [Windows 98] based on a one or more characteristics [486dx] [pg.23, Before You Begin].

41. It would have been obvious to one of ordinary skill in the art, having the teachings of Microsoft, Jeffries and Haigh before him at the time the invention was made, to modify the master system taught by Haigh and Jeffries to include the teachings of Microsoft, in order to conform with minimum system requirements [Microsoft: pg.23, Before You Begin]. One of

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ordinary skill in the art would have been motivated to make such a combination as it provides a very well known way to ensure that a system can operate effectively.

42. As to claim 14, Haigh discloses the method wherein said programming the slave controller to relay the boot request includes assigning one or more addresses to the slave controller [pt.25,30; address is needed to send information back to slave].

43. In re claim 24, Haigh discloses an apparatus [fig.1-3] comprising:

- Means for booting a master system [host 101] [pt.0026].
- Means for programming a slave controller to [code 218] to relay a boot request [command 214] from a slave processor [single board computer 100] to a master system controller [device driver 228] [pt.0025, 0029].
- Means for programming the master system controller to relay the boot request to a storage mechanism [disk 201] [pt.0029].
- Means for programming the master system controller to relay a boot image from the storage mechanism to the slave controller [pt.0029-30].
- Means for programming the slave controller to relay the boot image to the slave processor or memory associated with the slave processor [pt.0030].
- Means for booting the slave processor with the boot image [pt.0031].

44. Haigh did not discuss the details of identifying the slaves.

45. Jeffries discloses a master system [smb master] that includes means for performing one or more operations [get identity] after a booting [boot in order to operate] to identify a slave controller [smb slave] [col.7, ll.39-61], to interrogate the slave controller to identify one or more characteristics [nature, revision] of the slave controller [col.8, ll.34-47].

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46. It would have been obvious to one of ordinary skill in the art, having the teachings of Jeffries and Haigh before him at the time the invention was made, to modify the master system taught by Haigh to include the teachings of Jeffries, in order to automatically assign addresses to slaves in a system without requiring the user to manually or programmatically set physical or logical switches [Jeffries: col.2, ll.5-22]. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to automatically assign addresses to slaves in a system without requiring the user to manually or programmatically set physical or logical switches.

47. Microsoft discloses determining a boot image [Windows 98] based on a one or more characteristics [486dx] [pg.23, Before You Begin].

48. It would have been obvious to one of ordinary skill in the art, having the teachings of Microsoft, Jeffries and Haigh before him at the time the invention was made, to modify the master system taught by Haigh and Jeffries to include the teachings of Microsoft, in order to conform with minimum system requirements [Microsoft: pg.23, Before You Begin]. One of ordinary skill in the art would have been motivated to make such a combination as it provides a very well known way to ensure that a system can operate effectively.

49. As to claim 25, Haigh discloses each and every limitation of the claim as discussed above in reference to claims 14 and 24.

50. As to claims 33 and 34, Jeffries discloses, wherein said one or more characteristics include its type [nature] or version [revision] [col.8, ll.34-47].

51. Claims 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft, Jeffries and Haigh as applied to claim 13 above, and further in view of Jones.

52. In re claim 15, Microsoft, Jeffries and Haigh discloses each and every limitation as discussed above in reference to claim 13. Haigh did not discuss the details of the slave controller.

53. Jones discloses the method wherein a programming of the slave controller [associated circuitries/units of cpu 12 or 13] to relay a boot request includes programming the slave controller to allow access to one or more internal registers [119] of the slave controller [col.13, ll.1-52].

54. It would have been obvious to one of ordinary skill in the art, having the teachings of Microsoft, Jeffries, Haigh, and Jones before him at the time the invention was made, to use the teachings of Jones for the slave controller disclosed by Haigh as the accessing of internal registers is a well known way to transfer information in an apparatus of Haigh. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to transfer information between systems [Jones: col.13, ll.1-52; e.g., target boot address].

55. As to claim 26, Microsoft, Jeffries, Haigh, and Jones disclose each and every limitation as discussed above in reference to claims 15 and 24.

56. Claims 16-17, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haigh, Jeffries, and Microsoft, as applied to claims 13 above, and further in view of Rahman.

57. In re claim 16, Haigh, Jeffries, and Microsoft disclose each and every limitation of the claim as discussed above in reference to claim 13. Haigh did not discuss the details of the master controller.

58. Rahman discloses the method wherein a programming of the master system controller [boot address relocater 194] to relay the boot request includes programming the master system controller to redirect slave boot addresses [col.9, l.36 – col.10, l.41; change register 220].

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59. It would have been obvious to one of ordinary skill in the art, having the teachings of Rahman, Haigh, Jeffries, and Microsoft before him at the time the invention was made, to modify the apparatus taught by Haigh, Jeffries, and Microsoft to include the teachings of Rahman, in order to obtain the method wherein a programming of the master system controller to relay the boot request includes programming the master system controller to redirect slave boot addresses. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to reduce overhead and maintenance in a network system [Haigh: pt.0003-0016].

60. In re claim 17, Haigh, Jeffries, and Microsoft discloses each and every limitation of the claim as discussed above in reference to claim 13. Haigh did not discuss a reset condition.

61. Rahman discloses the method comprising releasing [deasserting] the slave processor [microprocessor 12(1)] from a reset condition [col.5, l.65 – col.6, l.5].

62. It would have been obvious to one of ordinary skill in the art, having the teachings of Rahman, Haigh, Jeffries, and Microsoft before him at the time the invention was made, to include the teachings of Rahman as the reset is a well-known condition used in an apparatus of Haigh, Jeffries, and Microsoft. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to reset a system for booting [Jones: col.13, ll.1-52].

63. As to claim 27, Jones, Haigh, Jeffries, and Microsoft disclose each and every limitation as discussed above in reference to claims 16 and 24.

64. Claim 30-32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haigh and Rahman as applied to claim 8 above, and further in view of Jeffries.



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65. In re claim 30, Haigh and Rahman disclose each and every limitation of the claim as discussed above in reference to claim 8. Haigh did not discuss the details of identifying the slaves.

66. Jeffries discloses a method comprising a master system [smb master], after a booting [boot in order to operate], performing one or more operations [get identity] to identify a slave controller [smb slave] [col.7, ll.39-61], to interrogate the slave controller to identify one or more characteristics [nature, revision] of the slave controller [col.8, ll.34-47].

67. It would have been obvious to one of ordinary skill in the art, having the teachings of Jeffries, Rahman and Haigh before him at the time the invention was made, to modify the master system taught by Haigh and Rahman to include the teachings of Jeffries, in order to automatically assign addresses to slaves in a system without requiring the user to manually or programmatically set physical or logical switches [Jeffries: col.2, ll.5-22]. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to automatically assign addresses to slaves in a system without requiring the user to manually or programmatically set physical or logical switches.

68. As to claim 31, Jeffries discloses, wherein said one or more characteristics include its type [nature] [col.8, ll.34-47].

69. As to claim 32, Jeffries discloses, wherein said one or more characteristics include its version [revision] [col.8, ll.34-47].

***Response to Arguments***

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70. All rejections of claim limitations as filed prior to Amendment dated March 10, 2005 not argued in entirety or substantively in response filed as said Amendment have been conceded by Applicant and the rejections are maintained from henceforth.

71. Applicant's arguments filed March 10, 2005 have been fully considered but they are not persuasive.

72. Applicant alleges that Rahman "explicitly teaches that fig. 1 is a processor system 10 comprising two microprocessors 12(0, 1)... this neither teaches nor suggest two systems, i.e., a master system and a slave system", but fails to point out how the claimed master and slave system are distinguished from the microprocessors 12(0,1) [e.g., what functions do the claimed master system perform that Rahman's master system does not] as depicted in fig. 1 with associated descriptions in col. 2, l. 41 – col. 4, l. 21.

73. Applicant alleges that "the Office of its own volition selectively groups, similar to gerrymandering, items based on the claim/elements/limitations... rather than relying on the teachings of the reference... the reference still must teach what components are in which of the two systems". Firstly, Applicant fails to specifically define "system" in limiting terms that would distinguish the claimed system from a broadly interpreted system as "a group of independent but interrelated elements comprising a unified whole". Secondly, Applicant is unjustifiably attacking a justified grouping [Examiner invites Applicant to read the previous Office Action along with Rahman in entirety to note that the items were grouped according to "independent but interrelated elements"] based on a very broadly worded term [i.e., system] in a claim that does not provide any guidance for or against any kind of grouping.

74. Applicant alleges that Rahman “neither teaches nor suggests that one microprocessor is remote from the other microprocessor, in fact, it teaches the opposite”. This argument is not understood and appears to be incomplete.

75. Applicant alleges that “memory 22 is just a memory device, it has no file serving functionality”, but fails to specifically point out how Applicant’s file serving functionality [not even claimed – whatever it is] distinguishes from Rahman’s [memory 22 serves up boot code file].

76. Applicant alleges that fig.2 of Haigh “clearly shows that BMI 230 does not include code 218... the Office has failed to present a rejection for each and every claim limitation”. Examiner appreciates Applicant’s concessions that BMI 230 equates to the *programmable* interface and code 218 equates to the system controller. However, Applicant fails to offer any guidance regarding what is inclusive or not [e.g., by operation, aesthetics, embedded structure]. As discussed above, Haigh teaches that BMI 230 is a *programmable* interface that needs to include some kind of code in order for it to operate.

77. Applicant alleges that “the Office must show the motivation and expectation of success to modify... per MPEP 2143.01.” Examiner disagrees as there is no such requirement for showing the expectation of success in MPEP 2143.01. On the contrary, MPEP 2143.02 stipulates that “Applicants [not the Office or Examiner] may present evidence showing there was no reasonable expectation of success”.

78. Applicant alleges the Office “apparently relies on Applicant’s claims as recipes for selecting pieces of art, rather than the states and specious motivation of making a better system as reason to combining these references” because Applicant does not “see how one skilled in the

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art wanting 'to reduce overhead and maintenance in a network system' would come up with... to read upon all the claim limitations". Firstly, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Examiner respectfully submits that all knowledge cited in the rejections were obtained solely from the cited references.

Secondly, Examiner invites Applicant to read the previous Office Action along with Haigh in entirety to note that the cited teachings [i.e., involving 230, 218, etc.] are integral components necessary for reducing overhead and maintenance in a network system as taught by Haigh. One with ordinary skill in the art would need to incorporate Haigh's teachings in order to reduce overhead and maintenance in a network system, resulting in the claimed apparatus.

79. Applicant alleges that Haigh teaches that "BMI Device Driver 228 passes on received commands ... it performs no such redirection". Examiner notes Applicant's concession that BMI 228 does indeed pass on received commands. However, Examiner is perplexed as to why Applicant does not consider passing on received commands [that were directed to the receiver BMI 228] a redirection. A note directed to Kirk who receives it and then passes it to Bill [or through some intermediary] is a redirection at least in the broadest interpretation.

80. Applicant alleges that the Office "fails to provide a motivation for adding these additional functions of Haigh". Examiner reminds Applicant that Haigh's teaching of redirection [and its

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associated components] is an integral component of the previous cited components necessary to fulfill the previous cited motivation for reducing overhead and maintenance in a network system [claim 5 depends on claim 4]. In such a case, no additional motivation is required [the motivation to install a wheel does not require separate motivations to install the nuts, bolts, and tires].

81. Applicant alleges that the Office “apparently relies on Applicant’s claims as recipes for selecting pieces of art” to reject claim 6. Again, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, Examiner respectfully submits that all knowledge cited in the rejections were obtained solely from the cited references.

82. Applicant alleges that “the Office fails to present a teaching on how to modify PIC to use the storage in Jones et al.’s second slave system to allow it to work”. Examiner is not aware of which section of MPEP Applicant is referring to that would require such action from the Office.

83. All other claims were not argued separately.

### ***Conclusion***

84. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen  
May 12, 2005

  
**LYNNE H. BROWNE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**